

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

SENTIUS INTERNATIONAL, LLC,

Plaintiff,

v.

BLACKBERRY LIMITED and  
BLACKBERRY CORPORATION,

Defendants.

**CASE NO. 2:16-CV-773-JRG-RSP**

**JURY TRIAL DEMANDED**

**PLAINTIFF'S REPLY CLAIM CONSTRUCTION BRIEF**

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**TABLE OF EXHIBITS**

<b>NO.</b>	<b>EXHIBIT</b>
1	Asserted Patents and Claims
2	U.S. Patent Reissued RE40,731E dated June 9, 2009
3	U.S. Patent Reissued RE43,633E dated September 4, 2012
4	<i>Sentius Corporation v. Flyswat, Inc.</i> (NDCA Case No. C00-02233 SBA) Order Re: Construction of Claim 8 of U.S. Patent No. 5,822,720 (Dkt. 52-7; filed 3.29.02)
5	<i>Sentius International, LLC v. Microsoft Corporation</i> (NDCA Case No. 5:13-cv-00825-PSG) Claim Construction Order (Dkt. 66; filed 1.9.14).
6	Declaration of Dr. Vijay K. Madisetti dated April 20, 2017.
7	Curriculum Vitae of Dr. Vijay K. Madisetti, ECE.
8	<i>Sentius International LLC v. Microsoft Corporation</i> (NDCA Case No. 5:13-cv-00825-PSG, Motion for Summary Judgment of No Infringement (Direct, Indirect, or Willful); pp. 3-4 (Dkt. 129; filed 12.2.14).
9	Microsoft Press, <i>Computer Dictionary: The Comprehensive Standard for Business, School, Library, and Home</i> , pp. 216-17 (1991).
10	Alan Freedman, <i>The Computer Glossary: The Complete Illustrated Dictionary</i> , pps. 224, 268, 276 (7th ed. 1995).
11	IEEE Standard Dictionary of Electrical and Electronics Terms (1996) (defining “link” as “a pointer.”).
12	<i>High Tech Dictionary</i> , Computer User (“link”).
13	Philip E. Margolis, <i>Random House Personal Computer Dictionary</i> , p. 346 (2 <sup>nd</sup> ed. 1996), <i>offset</i> .
14	“Document Image Understanding: Geometric and Logical Layout”, pps. 386, 387, 389, Robert M. Haralick, <i>Electrical Engineering FT-10</i> University of Washington, Seattle, WA 98115 - 1994 IEEE.

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15	“A Structure Editor for Abstract Document Objects”, Gary D. Kimura, pps. 418, 422, 430-435 (1986) Member, IEEE, IEEE Transactions on Software Engineering, Vol. SE-12, No. 3, March 1986 - 1986 IEEE.
16	“Document Formatting Systems: Survey, Concepts, and Issues”, Richard Furuta, Jeffrey Scofield, and Alan Shaw, pps. 419, 420, 432, 447-449 (1982), Department of Computer Science, University of Washington, Seattle, Washington, 98195, Computing Surveys, Vol. 14, No. 3, September 1982.
17	“Ten Years of Window Systems - A Retrospective View”, p. 36, Warren Teitelman, F. R. A. Hopgood et al. (eds.), Methodology of Window Management - EUROGRAPHICS The European Association for Computer Graphics (1986).
18	“A Description of the Model-View-Controller User Interface Paradigm in the Smalltalk-80 System”, Figures 1, 7, 16, Glenn E. Krasner and Stephen T. Pope, ParcPlace Systems, Inc., 1550 Plymouth Street Mountain View, CA 94043 - 1988 ParcPlace Systems.
19	“TreadMill Ink – Enabling Continuous Pen Input on Small Devices”, Giovanni Seni, Motorola Human Interface Labs, 805 E. Middlefield Road, Mountain View, CA 94043, Proceedings of the Eighth International Workshop on Frontiers in Handwriting Recognition, 2002 IEEE.
20	“The Text Editor sam”, pps. 6-8, 12, 14, 18, Rob Pike - rob@plan9.bell-labs.com.
21	U.S. Patent No. 5,436,637 - issued July 25, 1995 entitled “Graphical User Interface System and Methods for Improved User Feedback”. Inventors: Charles E. Gayraud; Perry A. Gee.
22	U.S. Patent No. 5,581,670 - issued December 3, 1996 entitled “User Interface Having Movable Sheet with Click-Through Tools. Inventors: Eric A. Bier; William A. S. Buxton.
23	European Patent Publication No. 0266001A2, “A Parser for Natural Language Text”. Applicant: International Business Machines Corporation. Inventors: Antonio Zamora; Michael D. Gunther; Elena M. Zamora.
24	Emacs - Version 18.59 (ftp://ftp.gnu.org/old-gnu/emacs/) and VI (VIM) Version 3.0 (ftp://ftp.vim.org/pub/vim/unix).
25	<u>Array. (n.d.) Christensson, P. (2007, October 17). Array Definition. Retrieved 2017, May 24, from <a href="https://techterms.com/definition/array">https://techterms.com/definition/array</a>.</u>
26	Supplemental Declaration of Dr. Vijay K. Madisetti dated June 16, 2017.

## SUMMARY

Blackberry correctly states that in determining whether a claim is “indefinite”, one cannot look at the disclosure of the patent unconnected to the knowledge of one skilled in the art but rather must “determine if one of skill in the art would have understood that disclosure to encompass [the required structure.]” (*See* BB Response Brief (Dkt. 63) at 2.)

However, Blackberry then departs from that standard by making arguments that both ignore the knowledge of one skilled in the art as well as the correct controlling law, namely *Enfish v. Microsoft*, 822 F.3d 1327, 1336-40 (Fed. Cir. 2016), which holds that algorithms for known functions need not be disclosed. By ignoring *Enfish*, Blackberry belies its argument that the Katz exception is the “only exception” to its own asserted rule that “[i]f no algorithm is disclosed, the claim is invalid.” This error in law drives Blackberry’s entire argument, which is based upon its incorrect conclusion that the only time an algorithm need not be disclosed is when the function can “be achieved by any general purpose computer without special programming.” (Dkt. 63 at 3.) Therefore, Blackberry’s conclusion that the “Katz exception does not apply just because a computer function is known or simple to implement” ignores *Enfish*, which provides precisely such an additional exception.

The claimed invention here recites algorithms implemented by software to add additional new and useful functionality to conventional visual editors of the day. While each MPF format claim element is directed to known techniques to perform one step of the overall claimed algorithms, it is how these techniques are combined in the overall algorithms which provides a more efficient way of linking words in a document to external reference information that makes the invention novel and worthy of protection. For example, this technology has been used to implement spell checkers that dynamically track the changing location of misspelled words in documents as they were being edited, putting a “red squiggly” underline under the misspelled

word and link the misspelled word to suggested spellings of the word from a spell check dictionary that can be displayed in response to the user clicking on a word for which the user desires to see such suggested spellings. Now the algorithms of the present invention has become the standard way of implementing such functionality. (Supplemental Declaration of Vijay Madiseti, (“Madiseti Supp. Decl.”) (Ex. 26 hereto).)

Each claim elements fit into one or more of the following categories: (1) claim elements directed to operating system functionality such as storing (means for recording) and displaying (means for displaying); (2) claim elements directed to conventional visual editor functionality such as parsing a document to identify its words and their relative positions (means for cutting) (means for determining starting and ending point addresses) and mapping the words’ locations to relative positions of the words to their screen positions (means for converting); and (3) other known techniques such as following a pointer to identity the data pointed to by the pointer (means for selecting) and retrieving data (means for retrieving). (*Id.*)

Defendants concede that basic processor functions require no special programming. For example, Defendants concede that no additional algorithm need be disclosed for the functions of recording (storing) the starting and ending positions of words in a look up table, or for recording therein each entry’s link to some corresponding reference material contained in an external database. (Dkt. 63, pp. 22-23.) Defendants ignore, however, that basic operating system functions not only include storing data but also include displaying data. (Madiseti Supp. Decl.)

Defendants also ignore that by the April 16, 1994 priority date of the patents-in-suit, visual editors (*i.e.*, those that work with a graphical user interface including “windows” based operating systems), were not “black boxes,” but rather commonly implemented certain functionalities with known techniques. For example, visual editors contained grammar parsers used to identify the character strings and positions of words in a document. Moreover, such

visual editors kept a mapping of screen position to position within a document so that a user could interact with the document; for example, to determine to what document position to move a cursor within the document in response to a right-click by the user. The claimed “cutting,” “determining,” “selecting,” and “converting” functions rely upon such functionality in implementing the algorithms described in the specifications in the patents-in-suit. (*Id.*)

Blackberry asserts that there is an inconsistency between Dr. Madisetti’s testimony in the *Selex* case and here. First, the patent at issue in the *Selex* case is directed to telephone monitoring systems unrelated to the patents at issue herein and what the *Selex* patent discloses (or fails to disclose) is irrelevant here. But even more importantly, Blackberry sets up a false equivalency because, in this case, there are no black boxes. Each of the claim terms recites a particular step in the execution of the overall algorithm of the claimed invention and each claim term is directed to standard operating system functionality, visual editor functionality or other known techniques. Therefore, no additional algorithmic support is necessary beyond what the patent specification already provides. Moreover, Dr. Madisetti’s testimony in *Selex* was under a different legal rubric, before *Enfish*’s clarification regarding the lack of need of an algorithm for known techniques. (*Id.*)

Because the common specification of the patents-in-suit provides definite structure for each of the claim elements, including sufficient algorithmic support for each element, Sentius’ proposed constructions should be adopted and Defendants’ indefiniteness arguments rejected.

## **ARGUMENT**

### **A. Claim Elements Directed to Conventional Operating System Functions of Storing, Comparing, Retrieving and Displaying**

Defendants concede storing information is a basic operating system function that requires no additional algorithmic support besides the specifications’ teachings of where such information is stored. (Dkt. 63, pp. 22-23.) No remaining dispute exists regarding the sufficiency of the



disclosure for the “means for recording” and “means for linking” elements, which are directed to storing in a look up table the relative starting and ending character positions of words to be linked to external reference material, along with the linking information (pointer) to the particular external reference material for each word’s starting and ending character position range. Furthermore, Defendants concede that the complete term “means for linking . . .” provides the algorithm for performing the claimed function. (*See* Dkt. 63, p. 23.)

Likewise, Defendants do not dispute that sufficient algorithmic support exists for the “means for comparing” element “to determine whether the offset value falls between the starting and ending point addresses for the plurality of discrete pieces of textual source material stored in the look-up table to identify one of the plurality of discrete pieces of textual source material as a match...” (Dkt. 63, pp. 27-28.) Defendants also do not dispute the fact that retrieving information implicates a basic operating system function. (*Id.* p. 24.) Defendants therefore also concede the “means for retrieving” element requires no further algorithmic support beyond the specification’s teachings that the external reference material for a given user-indicated word is retrieved for display using the stored pointer.<sup>1</sup>

Defendants do not take a position whether displaying information (such as the document text and retrieved external reference materials) is also a basic operating system function, because they assert the “means for displaying” is the screen upon which information is displayed. But Defendants cannot dispute that operating systems, including Windows operating systems, include basic functionality to display data. Nor can they dispute that conventional visual editors

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<sup>1</sup> Blackberry disputes whether sufficient algorithmic support exists for “means for selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces.” This is taught by ’731 specification’s disclosure and description of the look-up table, since the visual editor will select the link associated with the identified discrete piece by a look-up process after the comparing step and before the retrieving step. (’731 patent, 5:20-33, 6:48-65, 7:20-39 and 7:42-49; Madisetti Decl., ¶¶ 40, 115-120.)

of the day utilized this basic functionality to display the words of a document, and could be relied upon to provide this same functionality in the claim elements for displaying an image of the document and also for displaying the external reference information. (*See* Madisetti Decl., (Dkt. 47-14) ¶¶ 41, 43, 50.) Moreover, Defendants’ proposed interpretation is contrary to the specification, which explicitly refers to the electronic viewer module 43 as providing the claimed functionality of displaying the document image and the linked external reference materials.

Here, the disclosed structure of a “personal computer” in a preferred embodiment must be interpreted in light of one having ordinary skill in the art. (*Enfish*, 822 F.3d at 1340.) It is axiomatic that personal computers contain processors for executing instructions to perform various algorithms. Those skilled in the art would readily understand that it is the processors contained in the disclosed personal computer that would perform the various algorithms shown and described in the specification in the various software modules, including the operating system based functions, visual editor and grammar parser based functions, electronic viewer based functions, and other known techniques for completing the application functionality. Unlike *Default Proof*, a “processor” is an integral part of the disclosed “personal computer,” as opposed to the unrelated “dispenser” and “POS terminal.” Thus, the structure for each of the above claim limitations, if construed under § 112, ¶ 6, should be interpreted as a processor. (Madisetti Supp. Decl., ¶ 9.)

## **B. Claim Elements Directed to Conventional Visual Editor Functionality**

### **1. The Visual Editor, Grammar Parser and Electronic Viewer Module Are Sufficient Structure to Perform the Claimed Cutting and Determining, Selecting and Converting Steps Taught by the Specification**

Defendants ignore that by the April 16, 1994 priority date of the patents-in-suit, visual editors (*i.e.*, those that work with a graphical user interface including “windows” based operating systems) contained grammar parsers which were used to identify the character strings and

positions of words in a document. (Madisetti Decl., ¶¶ 41-43, 49-50; European Patent Publication No. 0266001A2, “A Parser for Natural Language Text” (Ex. 23); Emacs – Version 18.59 (Ex. 24).) Moreover, such visual editors kept a mapping of screen position to word position within a document so that a user could interact with the document; for example, to determine to what document position to move a cursor within the document in response to a right-click by the user. (Madisetti Decl., ¶¶ 43, 46; “A Structure Editor for Abstract Document Objects,” (Ex. 15), pp. 418, 430-35; “Document Formatting Systems: Survey, Concepts, and Issues,” (Ex. 16), pp. 420, 447-49; “The Text Editor Sam,” (Ex. 20), pp. 6-8.) The claimed “cutting,” “determining,” “selecting” and “converting” functions rely upon such this visual editor functionality in implementing the algorithm described in the specification for each of these elements. The existing visual editors already included the functionality of parsing the document to identify the character string of each word and its starting and ending position relative to the start of the document. (Madisetti Decl., ¶¶ 43, 45-47; Ex. 15, pp. 418, 430-35; Ex. “A Description of the Model View Controller User Interface Paradigm in the Smalltalk-80 System,” (Ex. 18), pp. 3-5; Ex. 20, p. 6; U.S. Patent No. 5,436,637 (Ex. 21).) Likewise, the existing visual editors already mapped the word locations within the document to screen addresses so as to know where to display the words on the screen. (Madisetti Decl., ¶¶ 43, 46, 48; Ex. 15, pp. 418, 430-35; Ex. 16, pp. 420, 447-49; Ex. 20, pp. 6-8; U.S. Patent No. 5,581,670 (Ex. 22).) Moreover, then existing visual editors already had graphical user interfaces with the ability to receive user screen input, such as right click over a character of a word on the screen and convert the screen position of the received input to a position within the document. (*Id.*) Indeed, visual editors of the day had this functionality precisely to allow the user to move to cursor from one place in the document to another and to perform user operations such as cutting and pasting. (Madisetti Decl., ¶¶ 41-48; “Document Image Understanding,” (Ex. 14 at pp. 386-87, 389).)

Defendants also misinterpret the legal standard for determining indefiniteness of a claim term interpreted under § 112, ¶ 6. While structure for performing the recited function must be described by the specification, the structure or algorithm can rely on well-known techniques known to those of ordinary skill in the art. (*See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1340 (Fed. Cir. 2016) (“The fact that this algorithm relies, *in part*, on techniques known to a person of skill in the art does not render the composite algorithm insufficient under § 112, ¶ 6”).) “Indeed, this is entirely consistent with the fact that the sufficiency of the structure is viewed through the lens of a person of skill in the art and without need to ‘disclose structures well known in the art.’” (*Id.* (quoting *Biomedino LLC v. Waters Techs. Corp.*, 490 F.3d 946, 952 (Fed. Cir. 2007)).)

The use of the critical components in Figs. 1 and 2, including the visual editor 19, grammar parser 23, and electronic viewer module 43 are described in detail in the specification, including the algorithms associated with the claimed “cutting,” “determining,” “selecting” and “converting” steps of the claimed algorithm. (*See* ’731 patent, 5:5-28, 6:46-65, 7:1-50.) None of these are black-boxes, as Defendants assert. Existing visual editors had graphical user interfaces and grammar parsers, terms which all have a concrete meaning to a person having ordinary skill in the art. (*See* Madisetti Decl., ¶¶ 41, 50.) In particular, Dr. Madisetti identifies two known visual editors, Emacs Version 18.59 and VI (VIM) Version 3.0, that were capable, in conjunction with a processor’s operating system, of performing a number of the claimed functions. (*Id.*; *See* Emacs – Version 18.59 (Ex. 24).) Each of the following five claim limitations incorporates known techniques implemented by existing visual editors of the day.

## **2. “Means For Cutting”**

Defendants are mistaken that human action is required for cutting the textual source material into a plurality of discrete pieces. The visual editor is described as a point and click

system because the user interacts with the editor through a graphical user interface (electronic viewer module 43), such as indicating a word for which they wish to see external reference materials. ('731 patent, 7:1-10 and 40-49.) The visual editor itself is coupled to a grammar parser, as described in the specification. ('731 patent, 5:5-19.) Processes performed by visual editors are described explicitly by the specification, including the process of dividing up the text “into the component word of phrases,” which are described as being “indexed based upon the position offset from the beginning of the text.” ('731 patent, 7:9-10 and 32-33; *See* Madisetti Decl., ¶ 65.) The disclosed structure for “cutting the textual source material” is the visual editor and grammar parser, which perform the step of parsing the given set of text into individual words. ('731 patent, 7:1-10.)

**3. “Means For Determining A Beginning Position Address”, A “Starting Point Address” and An “Ending Point Address”**

Here, Defendants repeat their contention that the specification only discloses “black-box components” for the means for determining a beginning position address and the means for determining starting and ending point addresses, and not “how” the determining is performed. (*See* Dkt. 63, pp. 9-11.) Notably, Defendants do not dispute that a visual editor is disclosed as performing the claimed functions. (*See Id.*; '731 patent, 7:6-10.) Processes performed by visual editors are described explicitly by the specification, including the process of dividing up the text “into the component word of phrases,” which are described as being “indexed based upon the position offset from the beginning of the text.” ('731 patent, 7:9-10, 7:32-33; *See* Madisetti Decl., ¶ 65.)

As described above, a visual editor is not a black-box component, but rather has particular meaning to one skilled in the art associated with known techniques. (*See* Madisetti Decl., ¶¶ 50-54.) Techniques for determining the beginning point position of the text as well as determining the starting and ending point position of the individual words relative to the

beginning point position were well known in the art and being performed by known visual editors of the day with grammar parsers. (Madisetti Decl., ¶¶ 43, 45-46, 66-67; *Enfish*, 822 F.3d at 1340.) The visual editors needed to know the relative location of words as a basic matter to know where to display words and also to provide other pre-existing functionality including techniques to move, cut, and edit objects based on their absolute or relative positions. (*Id.*; See “A Structure Editor for Abstract Document Objects,” (Ex. 15), pp. 418, 430-35; “A Description of the Model View Controller User Interface Paradigm in the Smalltalk-80 System,” (Ex. 18), pp. 3-5; “The Text Editor Sam,” (Ex. 20), p. 6.)

Since the structure of a visual editor is explicitly disclosed in the specification, linked to performing these claimed functions, these claim elements are not indefinite. More than ample specification support exists for these functions given the teachings of the specification and the fact that known visual editors with grammar parsers already assigned a value for the beginning character position of text within an open text files and identified the positions of words in the file relative thereto. (Madisetti Decl., ¶¶ 52, 66-67.)

#### **4. Means For Determining A Display Address”**

Defendants again misinterpret aspects of the specification as “black-box components.” The disclosed electronic viewer module and visual editor are not black-boxes – each is a well-known structure to those skilled in the art implementing known techniques of determining display addresses. (See Madisetti Decl., ¶¶ 45-46; See also *Enfish*, 822 F.3d at 1340 (“the sufficiency of disclosure is viewed through the lens of a person of skill in the art and without need to ‘disclose structures well known in the art’”).) For example, known visual editors included inbuilt support for determining a display address of a selected discrete portion, such as the coordinates of a select discrete portion in Fig. 16 of Ex. 18. (See *Id.*; Ex. 18, p. 5; Ex. 20, pp. 6-8, 12, 18.) The specification further provides details. The electronic viewer module is

described as determining the location of the of a user input and the specification goes into detail regarding a plurality of features performed via input to the electronic viewer module, such as to indicate to the system a word for which the user desires additional reference material to be displayed and for the user to interact with the system to perform cut, copy, paste, and find functions, each of which encompass the known techniques for determining display addresses where a user input was received. ('731 patent, 5:29-43, 7:40-42, 8:28-60.)

## 5. “Means For Converting”

Defendants’ argument rests solely on the contention that the specification only discloses “black-box components,” and not “how” the converting is performed. (*See* Dkt. 63, pp. 6-8.) However, Sentius has explicitly pointed out multiple portions of the specification which describe *how* the application program uses the click information from the electronic viewer and starting and ending positions determined with the visual editor to convert the display address to an offset value. (*See* Dkt. 55, pp. 31-33; '731 patent, Figs. 1-2, 5:5-33, 6:51-55 (“click position is determined and used to calculate an offset value within the text (200). In the example shown in Fig. 2, the user clicks at a particular location, *e.g.* horizontal and vertical coordinates 100 and 75, respectively and an offset value of 25 is returned”), '731 patent at 6:46-55; 7:1-10, 7:22-35, 7:41-45; *See* Madisetti Decl., ¶¶ 103-105.)

This disclosed structure must be combined with the techniques known to one skilled in the art. (*Enfish*, 822 F.3d at 1340 (“The fact that this algorithm relies, *in part*, on techniques known to a person of skill in the art does not render the composite algorithm insufficient under § 112, ¶ 6”).) Techniques for converting display addresses to offset values were well known in the art as being performed by known application programs and visual editors. One skilled in the art, in light of the disclosed structure, would understand that each discrete piece occupies a

known image size, and since the arrangement of images is known, the click position can be mapped to a specific text image and therefore a particular offset. (Madisetti Decl., ¶ 107.)

Furthermore, the disclosed visual editor further provides structural support for the claimed function. (*See Id.*, ¶¶ 41, 48, 50.) As described above, a visual editor is not a black-box component, but rather has particular meaning to one skilled in the art associated with known techniques. (*See Id.*) Specifically, known visual editors can convert bitmap positions or display locations into positions or locations within the document data structures at which an edit should be made. (*Id.*; *See* Ex. 22, 4:47-64, 33:15-36:9; Ex. 24.) Since the structures of an application program including its electronic viewer module and visual editor are explicitly disclosed in the specification, linked to performing the claimed function, this claim term is not indefinite.

### **C. Sufficient Structure Otherwise Disclosed by the Specification**

#### **1. “Means For Selecting One Of The Plurality of External References”**

Defendants incorrectly assert the “means for selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces” corresponds to a user selection of a certain type of additional functional features that may optionally be displayed on a pop-up window, such as “にほんけいざい,” “English Reference” and “Additional Notes.” This argument is based upon Fig. 3, which shows that in one preferred embodiment, the user may optionally be presented in the pop-up window with additional menu functionalities that are presented along with the external reference material for the user indicated word, such as “Additional Notes.” Defendants’ argument is meritless. The user clearly does not select what yomi (“にほんけいざい”) is presented for the user indicated word. The system selects the information that will be retrieved and displayed in the pop-up window by simply looking in the look up table for its pointer. Any user selection of additional menu features would come *after* the external reference material for the word (e.g., its English translations) has already



been selected, retrieved and presented by the system. ('731 patent, 9:13-19 (“the pop-up information contains the yomi, the English references, and the notes section. If the pop-up menu does not appear, the selected word is not referenced”).) The recited claim functionality necessarily occurs prior to the pop-up menu shown in Fig. 3 because the pop-up already contains selected external reference material. It is inconceivable that the “means for selecting” refers to the functional features shown in Fig. 3; Defendants’ interpretation is illogical and completely removed from the disclosure of the specification. Thus, Defendants’ proposed construction cannot be a reasonable interpretation. Only Sentius’ interpretation explicitly ties the structure of selecting the external reference stored in the look-up table corresponding to the matching character position ranges for the selected discrete piece. (*See* '731 patent, 6:55-59, 7:45-49.)

One of the benefits of the claimed invention is that it links certain words in a document to corresponding external reference materials (such as an English translation of a Japanese word) by storing in a look-up table each linked word’s starting and ending offset position within the document along with a pointer to the external reference material for that word. The pointer stored in the look-up table is a proxy for the external reference material, which is stored in a database externally to the look-up table and even the document. Once a user clicks on a given screen position, the system determines the offset value within the document and selects the external reference that will ultimately be retrieved and displayed for that word by looking up its pointer in the look up table.

Nonetheless, Blackberry disputes whether sufficient algorithmic support exists for “means for selecting one of the plurality of external reference materials . . .” This is taught by '731 specification’s disclosure and description of the look-up table, since the visual editor will select the external reference material by identifying its corresponding pointer, which will then be used in the retrieving step. ('731 patent, 5:20-33, 6:48-65, 7:20-49; Madisetti Decl., ¶¶ 40, 115-

120.) The specification thus explicitly discloses, particularly in Fig. 2, that the “means for selecting one of the plurality of external reference materials corresponding to the identified one of the plurality of discrete pieces” uses the look-up table to select one of the plurality of external reference materials corresponding to a given discrete piece. Defendants overlook this is a critical aspect of *how* the system is able to select the appropriate external reference material for a given discrete piece (word).

## **2. “Means For Selecting A Discrete Portion”**

Defendants do not provide any rationale as to why one skilled in the art would not recognize that this term refers to a general Windows based operating system function to identify where a user input (such as a mouse click) was received on a display. (*Compare* Dkt. 63, pp. 25-26 and Goodin Decl., ¶ 66, *with* Dkt. 55, pp. 28 and Madisetti Decl., ¶¶ 91-92.) In the alternative, under § 112, ¶ 6, Sentius has pointed to several portions of the specification which provide support for the electronic viewer module 43 determining the screen location where a user input was received as per conventional visual editor functionality. (*See* Dkt. 55, pp. 28-29; ’731 patent, 6:48-65, 7:40-49, 9:36-38.) Thus, Defendants’ conclusory rejection of Sentius’ proposed construction is unfounded.

## **3. “Means For Displaying An Image Of The Textual Source Material**

Defendants do not dispute algorithmic support of this basic operating system and visual editor functionality, but want to construe as limited to the structure of a “personal computer” and “electronic display of a personal computer.” (Dkt. 63, pp. 26-27.) But again it is clear that the invention here is additional software functionality that is added to the basic functionality of a visual editor and that the claim is directed to the software modules executed by the processor (in conjunction with its operating system) to execute each step of the overall algorithm. Moreover, Sentius has pointed to several portions of the specification which provide support for the

electronic viewer module 43 displaying the document image and pop-up window a display screen. (*See* Dkt. 55, pp. 26-27; '731 patent, Abstract, Figs. 1, 3-5, 4:6-8, 4:18-27, 5:29-33, 6:48-52, 7:24-53; Madisetti Decl., ¶¶ 84-90.) Defendants similarly do not provide any rationale as to why one skilled in the art would recognize that this claim element suddenly switches to hardware and instead does not refer to the software module utilizing the general operating system function of a computer processor to create a viewable image of text on a display. (*Compare* Dkt. 63, pp. 26-27 and Goodin Decl., ¶ 62, *with* Dkt. 55, pp. 26 and Madisetti Decl., ¶¶ 84-85; *See also* Dkt. 55, pp. 38-40.) Thus, Sentius' proposed construction should be adopted.

**D. “Beginning Position Address”, “Starting Point Address” and “Ending Point Address”, “Display Address”**

As the specification sets forth, and in accordance with conventional 1994 visual editor technology, when a document was opened in a visual editor, the grammar parser of the visual editor parsed the document to identify each word and its starting and end point position relative to the beginning of the document. Furthermore, the conventional 1994 visual editor maintained a mapping of the location of each word to a screen position so that (1) it could properly display the words contained in any given portion of the document on the screen in their relative order; and (2) so that it could determine to what position within a document to move the cursor corresponding to a user input received at a given screen position. The specification is clear that the invention incorporates such functionality not to move the cursor, but to determine which word a user wishes to see a corresponding external reference materials (e.g., in the exemplary embodiment an English translation of a Kanji word.) The specification further makes clear that such functionality is provided precisely by converting a screen position to a corresponding offset value from the start of the document and comparing that offset value with the offset values stored in the look table to determine which word the user indicated. ('731 patent, 6:46-65, 7:40-49.) Defendants' proposed construction not only rejects this clear specification disclosure but also

rests on the incorrect assumption that the same word, ‘address,’ must be construed in separate and distinct ways in the terms “beginning point address,” “starting point address,” “ending point address” and “display address.” Defendants cannot show here that the presumption that “the same terms appearing in different portions of the claims should be given the same meaning” is overcome. (*Frank's Casing Crew v. Weatherford Intern*, 389 F.3d 1370, 1377 (Fed. Cir. 2004); *See Fin Control Systems Pty, Ltd. v. Oam, Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001).)

In contrast, Sentius’ proposed constructions are simple, consistent, and true to the plain meaning of the claims and to the specification, and should be adopted. Moreover, the prosecution history supports Sentius’ construction because the applicant’s statement, “the claimed invention operates upon pure byte offsets” (Dkt. 63, p. 31 and Dkt. 63-10, pp. 10-11.) is consistent with Sentius’ position that these addresses refer to character position offset values, since each character is one byte.<sup>2</sup>

The *Flyswat* Claim Construction Order is consistent with Sentius’ construction. The *Flyswat* court determined that “[t]he ‘address’ of the ‘selected discrete portion’ is merely the location of the discrete portion in the source material image which is displayed to the user.” (Ex. K, p. 37.) This is entirely consistent with construing “display address” as a “display location.” The term “address” refers to a location (synonymously, a position) whether it is a position in the document set as an offset value or a position on a screen set as coordinates. And, again, conventional visual editor parsing and screen mapping functionality converts one to the other.

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<sup>2</sup> Defendants also refer to remarks made accompanying the amendment “means for determining an address on said electronic database for the beginning position of said source material image.” (Dkt. 63, p. 31; “5/23/1996 Response in Prosecution History of ’720 Patent,” (Ex. J-2), p. 3.) The claims at issue, however, do not recite “address on the electronic database.” If, as the Defendants claim, “address” must be interpreted as “the address of the material within the electronic database,” there would be no need to have amended the claims to recite “address on the electronic database.” (*Id.*, p. 31.) Such a construction would render the amendment superfluous.

Dated: June 16, 2017

Respectfully Submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3) on this 16th day of June 2017.

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